Clinical Update

All forms of vitamin E count in Alzheimer protection

A combination of different vitamin E forms could help prevent cognitive deterioration in advanced age, according to the results of a study from Sweden.

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Published this week in the *Journal of Alzheimer's Disease,* the findings suggest that it is multiple components of the vitamin that could reduce the risk of developing Alzheimer's.

The role of the vitamin E family in Alzheimer's Disease (AD) is unclear, said the researchers, in spite of the strong biological plausibility of a possible protective activity of these micronutrients in age-related cognitive decline and AD.

Their population-based study aimed to evaluate whether higher plasma levels of vitamin E could be protective against Alzheimer's in advanced age and whether the protective activity could be due to more than just the tocopherol form of the vitamin.

"Vitamin E is a family of eight natural components, but most studies related to Alzheimer's disease investigate only one of these components – tocopherol," said Dr Francesca Mangialasche, who led the study.

"We hypothesized that all the vitamin E family members could be important in protecting against AD. If confirmed, this result has implications for both individuals and society, as 70 percent of all dementia *cases in the general population occur in people over 75 years of age, and the study suggests a protective effect of vitamin E against AD in individuals aged 80+."*

Participants over 80

Conducted at the Aging Research Center (ARC), Karolinska Institutet, Stockholm, Sweden, in collaboration with the Institute of Gerontology and Geriatrics, University of Perugia, Italy, the study involved 232 participants over the age of 80. At the start of the study, all participants were dementia-free. After six years, 57 cases of Alzheimer's were identified.

Blood tests taken at the beginning of the study evaluated all eight vitamin E components. People with higher blood levels of the vitamin were compared with those who had lower levels, to examine whether these two groups developed dementia at different rates.

"The study found that subjects with higher blood levels of all the vitamin E family forms had a reduced risk of developing AD, compared to subjects with lower levels. After adjusting for various confounders, the risk was reduced by 45-54 percent, depending on the vitamin E component," said the researchers.

Not just tocopherols

These findings support the hypothesis that vitamin E's protective activity seems to be related to the combination of different forms, rather than *α*-tocopherol alone, they concluded. This, they said, justifies the *"protective effect of dietary intake observed in epidemiological studies and the disappointing results observed in clinical trials."*

"Elderly people as a group are large consumers of vitamin E supplements, which usually contain only ±-tocopherol, and this often at high doses," said Dr Mangialasche. *"Our findings need to be confirmed by other studies, but they open up for the possibility that the balanced presence of different vitamin E forms can have an important neuroprotective effect."*

(Source: www.nutraingredients.com)